

IN THE CLAIMS:

Claims 1, 3, 8, 27-28, and 46-47 have been amended herein. Claim 48 has been added. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (Currently Amended) A method for producing mRNA encoding a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, or a ~~functional-part~~ fragment thereof, in a yeast cell, said method comprising:
providing said yeast cell with a nucleic acid encoding said ectodomain or ~~functional-part~~ said fragment thereof, wherein the ~~functional-part~~ fragment thereof comprises the an amino acid sequence ~~corresponding to amino acids residues~~ selected from the group consisting of 25-442, ~~97-318~~, 97-442, and 97-545 of SEQ ID NO: 6, wherein the encoding nucleic acid comprises a nucleotide sequence of FIG. 1 encoding the ectodomain or the ~~functional-part~~ fragment thereof, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain or said fragment thereof, and wherein said nucleic acid encoding said ectodomain, or fragment thereof, is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain or the ~~functional-part~~ fragment thereof exhibits specificity for mAb 4G2.
2. (Previously Presented) The method according to claim 1, further comprising expressing said nucleic acid in said yeast cell.
3. (Currently Amended) The method according to claim 2, further comprising purifying said *Plasmodium* AMA-1 ectodomain or ~~functional-part~~ fragment thereof.
4. (Previously Presented) The method according to claim 1, wherein at least one putative yeast polyadenylation consensus sequence in the nucleic acid has been modified.
5. through 7. (Canceled).

8. (Currently Amended) The method according to claim 1, wherein the mRNA encoding *Plasmodium falciparum* AMA-1 ectodomain, or fragment thereof, comprises mRNA encoding *Plasmodium falciparum* Vietnam-Oak Knoll strain ectodomain.

9. (Previously Presented) The method according to claim 1, wherein said yeast cell is *Pichia*.

10. (Previously Presented) The method according to claim 9, wherein said yeast cell is *Pichia pastoris*.

11. through 26. (Canceled).

27. (Currently Amended) A process for producing a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain or a ~~functional-part~~ fragment thereof, said method comprising:

providing a yeast cell with an isolated or recombinant nucleic acid encoding *Plasmodium falciparum* AMA-1 ectodomain or a ~~functional-part~~ fragment thereof, wherein the ~~functional-part~~ fragment thereof comprises the an amino acid sequence ~~corresponding to amino acids residues~~ selected from the group consisting of 25-442, ~~97-318~~, 97-442, and 97-545 of SEQ ID NO: 6, wherein the encoding nucleic acid comprises a nucleotide sequence encoding the ectodomain or the ~~functional-part~~ fragment thereof of FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain or said fragment thereof, and wherein said nucleic acid is modified to utilize a yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain or the ~~functional-part~~ fragment thereof exhibits specificity for mAb 4G2; and collecting formed *Plasmodium falciparum* AMA-1 ectodomain or ~~functional~~ fragment part thereof.

28. (Currently Amended) The process of claim 27, further comprising purifying said formed *Plasmodium* AMA-1 ectodomain or ~~functional part~~ fragment thereof.

29. (Previously Presented) The process of claim 27, wherein said yeast cell is *Pichia*.

30. (Previously Presented) The process of claim 29, wherein said yeast cell is *Pichia pastoris*.

31. through 45. (Canceled).

46. (Currently Amended) A method for producing mRNA encoding a ~~functional part~~ fragment of a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain in a yeast cell, said method comprising:

providing said yeast cell with a nucleic acid encoding said ~~functional part~~ fragment of said ectodomain, wherein the ~~functional part~~ fragment thereof comprises ~~the~~ an amino acid sequence ~~corresponding to amino acids residues~~ selected from the group consisting of 25-442, ~~97-318~~, 97-442, and 97-545 of SEQ ID NO: 6, wherein the encoding nucleic acid comprises a nucleotide sequence encoding the ~~functional part~~ fragment thereof of FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain fragment, and wherein said nucleic acid is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain ~~or the functional part thereof~~ fragment exhibits specificity for mAB4G2.

47. (Currently Amended) A method for producing a ~~functional-part~~ fragment of a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, said method comprising:

providing said yeast cell with an isolated or recombinant nucleic acid encoding a ~~functional-part~~ fragment of a *Plasmodium falciparum* AMA-1 ectodomain, wherein the ~~functional-part~~ fragment thereof comprises the an amino acid sequence ~~corresponding to amino acids~~ residues selected from the group consisting of 25-442, ~~97-318~~, 97-442, and 97-545 of SEQ ID NO: 6, wherein the encoding nucleic acid comprises a nucleotide sequence encoding the ~~functional-part~~ fragment thereof of FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain fragment, and wherein said nucleic acid is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain ~~or the functional-part~~ fragment thereof exhibits specificity for mAB4G2; and

collecting the formed ~~functional-part~~ fragment of *Plasmodium falciparum* AMA-1.

48. (New) A method for producing mRNA encoding a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, or a fragment thereof, in a yeast cell, the method comprising:

providing the yeast cell with a nucleic acid encoding the ectodomain or the fragment thereof, wherein the fragment thereof comprises an amino acid sequence selected from the group consisting of 25-442, 97-442, and 97-545 of SEQ ID NO: 6, wherein the encoding nucleic acid comprises a nucleotide sequence of FIG. 1 encoding the entire ectodomain or the entire fragment thereof, and wherein at least one eukaryotic glycosylation site is removed relative to a wild-type *Plasmodium falciparum* AMA-1 ectodomain or fragment thereof, and wherein the nucleic acid encoding the ectodomain, or the fragment thereof, is modified to utilize said yeast cell's codon usage, and wherein the *Plasmodium falciparum* AMA-1 ectodomain or the fragment thereof exhibits specificity for mAb 4G2.